LANDFILL GAS ENERGY

Fueling the economy and a sustainable energy future while improving the environment

Landfill gas (LFG) energy projects have been around since the late 1970s, providing sustainable alternative energy in the form of electricity and alternative fuel to citizens, businesses, and industry. In 2004 alone, more than 375 operational LFG energy projects in 38 states supplied:

- 9 billion kilowatt hours of electricity, and
- 74 billion cubic feet of LFG to end users.

The estimated annual environmental benefits and energy savings associated with these operational projects are equivalent to:

- Planting 19,000,000 acres of forest, or
- Preventing the use of 150,000,000 barrels of oil, or
- Removing the CO_2 emissions equivalent to 14,000,000 cars, or
- Offsetting the use of 325,000 railcars of coal.

LFG energy projects also have a substantial impact on economic growth and cost savings. A typical 3 megawatt LFG electricity project is estimated to have the following national benefits (direct, indirect, and induced) during the construction year:

- Increase the output of the U.S. economy by more than $10 million.
- Increase U.S. employee earnings by more than $3 million (e.g., wages, salaries).
- Employ more than 70 people (expressed in full-time equivalents per year).

These projects bring significant cost savings and long-term energy price stability to LFG end users:

- BMW Manufacturing expects a savings at their Greer, SC plant of more than **$1 million per year**.
- General Motors expects savings of more than **$5 million per year** from their 5 current LFG projects.
- SC Johnson estimates **$1 million in savings per year** at its plant in Racine, WI.
- The NASA Goddard Space Flight Center expects to save taxpayers more than **$400,000 per year** from its LFG project in Greenbelt, MD.

However, much remains to be done. It is estimated that the number of LFG energy projects, and the associated environmental and economic benefits, could be more than tripled. LFG energy – utilizing an otherwise wasted resource to benefit the environment and the economy!

"The greenhouse gases we save through this process will be equivalent to keeping 3,200 cars off the road per year. That's right for SCJ, our community and our planet today – and even more important, it's right for the generations of tomorrow."

Dr. H. Fisk Johnson
Chairman of SC Johnson and Son

"This LFG energy project allows BMW to take a wasted source of energy and use it to generate electricity, which benefits the environment and area residents through lower emissions."

Dr. Helmut Leube, President, BMW Manufacturing Corp.

"Our LFG energy project directly benefits the Earth by removing a significant amount of methane, a greenhouse gas, from the environment. Hopefully, projects like these will demonstrate the clean, efficient, cost effective use of renewable sources of energy."

Sean O'Keefe, Former Administrator, NASA

"It's a clean burning fuel and makes a perfect power source for the plant's boilers. It's reduced our dependence on coal."

Michael Schafran, Environmental Engineer, General Motors Orion Assembly Plant

LANDFILL METHANE OUTREACH PROGRAM

EPA's Landfill Methane Outreach Program (LMOP) is a voluntary assistance and partnership program that promotes the use of LFG as a renewable energy source. By preventing emissions of methane - a powerful greenhouse gas - through the development of LFG energy projects, LMOP helps businesses, states, and communities protect the environment and build a sustainable future. For more information about LMOP, visit www.epa.gov/lmop.